



Exhibit A

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MATTHEW P. MITCHELL

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Appeal No. 2002-0064  
Application No. 09/084,042

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ON BRIEF

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Before FRANKFORT, STAAB, and BAHR, *Administrative Patent Judges*.  
STAAB, *Administrative Patent Judge*.

*DECISION ON APPEAL*

Matthew P. Mitchell appeals from the examiner's final rejection of claims 1-12. Claims 13-20, the only other claims currently pending in the application, have been withdrawn from further consideration pursuant to 37 CFR § 1.142(b) as not being readable on the elected invention.

Appellant's invention pertains to an improved regenerator comprising a plurality of separate concentric foil layers. A copy of the appealed claims appears in the appendix to appellant's main brief.

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The references cited the examiner in the final rejection  
against the claims are:

Pauletta	3,468,634	Sep. 23, 1969
Yaron et al. (Yaron)	5,429,177	Jul. 4, 1995

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being  
anticipated by Pauletta.

Claims 2-5 stand rejected under 35 U.S.C. § 103(a) as being  
unpatentable over Pauletta.

Claims 6-12 stand rejected under 35 U.S.C. § 103(a) as being  
unpatentable over Pauletta in view of Yaron.

Reference is made to appellant's main and reply briefs  
(Paper Nos. 17 and 19) and to the examiner's answer (Paper No.  
18) for the respective positions of appellant and the examiner  
regarding the merits of these rejections.

*I. The anticipation rejection of claim 1*

Independent claim 1 reads as follows:

1. An improved regenerator comprising a plurality of  
separate concentric layers of regenerator foil installed in  
a generally cylindrical space.

Pauletta, discussed in more detail below, pertains to a  
concentric tube odor eliminator. Pauletta's device includes a

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heat exchanger in the form of a plurality of concentric tubular members 16. The walls of the concentric tubular members may be undulating (column 2, lines 51-58).

In rejecting claim 1 as being anticipated by Pauletta, the examiner states (answer, page 5) that

there is no claimed structural difference between the claimed invention and Pauletta . . . . Since the device of Pauletta meets appellant's structurally claimed device, then the device of Pauletta anticipates the claimed device an [sic, and] can be used in all [the same] environments and systems as [the] claimed device and operate in the same fashion as appellant's claimed device. . . . [A]ppellant does not claim any valving or fluid system or the details of any system into which the claimed device is to [be] employed.

We consider the examiner's determination that the concentric tubing members 16 of Pauletta's heat exchanger correspond to the elements of claim 1 set forth in the body of the claim to be well founded.<sup>1</sup> However, we do not consider this determination to be dispositive of the anticipation issue raised in this appeal in that it does not take into account the effect the preamble recitation "regenerator" should be given in determining what subject matter claim 1 encompasses.

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<sup>1</sup>The claim terms "regenerator foil" and "generally cylindrical space" are defined on page 9 of appellant's specification; however, these terms, as so defined, do not appear to distinguish over the concentric tubing members 16 of Pauletta's heat exchanger.

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Whether a preamble or introductory clause constitutes a limitation on a claim is a matter to be determined by the facts of each case in view of the claimed invention as a whole. *Corning Glass Works v. Sumitomo Elect. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Cir. 1989); *In re Stencel*, 828 F.2d 751, 754, 4 USPQ2d 1071, 1073 (Fed. Cir. 1987); *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 480-81 (CCPA 1951). In the present case, we agree with appellant's argument (reply brief, page 2) to the effect that the preamble recitation "regenerator" is a limitation on claim 1 that implies a particular kind of heat exchange device. Here, the specification makes clear that appellant's inventive energies are directed to correcting a perceived problem in the particular field of foil regenerators for regenerative gas cycle machinery (specification, page 1)<sup>2</sup>, and not merely an improvement in the field of heat exchange devices in general. Bearing this in mind, it is our view that when claim 1 is read in light of the specification, it

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<sup>2</sup>According to appellant (specification, page 2), prior art high efficiency foil regenerators for regenerative gas cycle machinery are hard to make because they were manufactured from a single large sheet of spiral-wrapped foil, which foil sheet is difficult to fabricate and handle. Appellant's regenerator is said to overcome these problems by providing the layers of the regenerator matrix as a plurality of separate concentric foil layers.

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depends for completeness on the preamble recitation "regenerator" such that, in this instance, the term "regenerator" is a limitation on claim 1 and not merely a statement of purpose or use. In other words, the limitations found in the body of the claim are not the only limitations of the claim, and the term "regenerator" in the preamble of claim 1 itself further limits the scope of claim 1 such that every heat exchange device that literally meets the terms of the body of the claim does not necessarily anticipate the claim. To read the claim in light of the specification indiscriminately to cover all types of heat exchangers would be divorced from reality.<sup>3</sup>

Looking at Pauletta, the alleged anticipatory reference, in more detail, this patent pertains to a concentric tube odor eliminator wherein waste gas having noxious constituents is heated to an elevated temperature to oxidize or otherwise transform the noxious constituents to a benign state (column 1,

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<sup>3</sup>It is, of course, well settled that in proceedings before the PTO claims must be given their broadest reasonable interpretation consistent with the specification, and that the claim language cannot be read in a vacuum, but instead must be read in light of the specification as it would be interpreted by one of ordinary skill in the pertinent art. See, for example, *In re Bond*, 910 F.2d 831, 833, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990), *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 986, 6 USPQ2d 1601, 1604 (Fed. Cir. 1988) and *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983).

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lines 23-38). Pauletta's apparatus includes a housing 10 in which is located a heat exchanger in the form of a series of concentric tubular members 16 spaced apart from one another to provide therebetween inlet and outlet passageways 17 and 19. These passageways are connected respectively to inlet and outlet ports 12 and 14 by means of a manifold 22 (column 2, lines 1-6). The operation of Pauletta's apparatus is explained in the paragraph spanning columns 2 and 3. Waste gas including noxious constituents to be incinerated enters the apparatus through inlet 12 and is distributed across the concentric tube core of the heat exchanger by the manifold 22. The gas is directed downwardly into the spaces between the tubes 16 and at the bottom of the heat exchanger is directed through a baffle tube 32 towards heating means 24 where the gas is heated to a temperature of about 1500°F to neutralize the noxious constituents. The high temperature gas is then directed into the concentric outlet passageway 19 in heat exchange relation to cooler waste gas entering the heat exchanger. Given this description of the construction and operation of Pauletta, appellant's argument on page 10 of the main brief that in Pauletta the flow of inlet gas is kept separate from the flow of outlet gas, and that the flow

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passages 17 and 19 are bonded and connected to separate headers to provide impermeable barriers to the mixing of the two flows is reasonable.

Turning to appellant's regenerator, in the paragraph spanning pages 9-10 of the specification it is explained that, within the context of a regenerative gas cycle machine, fluid is cycled back and forth through the regenerator such that:

As fluid flows back and forth through regenerator 24, it leaves heat in the regenerator material as it flows in one direction and picks up heat from the regenerator material as it flows back in the other direction. The material of the regenerator must be porous to permit fluid to flow, and the size and shape of the flow passages determines both the effectiveness of heat transfer between regenerator material and fluid and the the [sic] amount of pressure drop experienced by the flow.

The examiner's assertion (answer, page 5) that the device of Pauletta can be used in all the same environments and systems as the claimed device and operate in the same fashion as appellant's claimed device is not well taken. Nothing in Pauletta either expressly or impliedly discusses the use of the Pauletta heat exchanger as a "regenerator" in the sense described in appellant's specification wherein the material of the regenerator itself is porous to permit fluid to flow through the regenerator, and wherein the flow passages of the regenerator are sized and

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shaped to facilitate heat transfer between regenerator material and fluid and the amount of pressure drop experienced by the gas as it flows through the regenerator. In this regard, given that Pauletta's heat exchanger reasonably appears to be constructed with a manifold that keeps the flow of incoming gases separated from the counterflow of outgoing gases, it is questionable whether Pauletta's device is capable of functioning in any meaningful sense to allow a cycling fluid to liberate heat to the material of the flow passages as it flows through the regenerator in one direction and then to pick up heat from the material of the flow passages as the fluid flows back through the regenerator in the opposite direction as described in the paragraph spanning pages 9-10 of appellant's specification. Accordingly, we do not believe one of ordinary skill in the art would consider the heat exchanger of Pauletta to be a "regenerator" as called for in appealed claim 1 when that term is interpreted in light of appellant's specification. While we appreciate that the heat exchange device of Pauletta appears to have all the structure recited in the body of claim 1, the examiner's position (answer, page 5) that the device of Pauletta can be used in all the same



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environments and systems as the claimed device and operate in the same fashion as appellant's claimed device is, at best, speculative.

In light of the above, we consider that the preamble recitation "regenerator" in claim 1 is a limitation on the claimed subject matter, and that Pauletta does not meet this limitation. Accordingly, we will not sustain the standing rejection of claim 1 as being anticipated by Pauletta.

*II. The obviousness rejection of claims 2-5*

Claims 2-5 depend from claim 1 and add that the two edges of a layer of the foil meet each other in an unbonded butt joint (claim 2), that the two edges of a layer of the foil meet each other in an open joint (claim 3), that two edges of a layer of the foil meet each other in an unbonded butt joint and that two edges of a different layer of foil approach each other in an open joint (claim 4), and that each layer of foil has a joint that is radially offset from the joint in an adjacent layer (claim 5).

In rejecting these claims, the examiner has taken the position (answer, page 4) that these additional claim limitations "are considered to be . . . obvious design expedients . . . which do not solve any stated problem or produce any new and/or unexpected result."

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In the present instance, where the examiner has cited no evidence to support his subjective opinion that one of ordinary skill in the art would consider the further limitations found in claims 2-5 to be obvious design expedients, and where the claim limitations in question go to the very essence of appellant's invention (see, for example, the summary of the invention on pages 8-9 of the specification), they may not be dismissed as mere design expedients that solve no stated problem or produce no new or unexpected result. *Compare In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975) (use of electrical connection which solves *no stated problem* in lieu of those used in the reference held to be obvious matter of design choice within the skill in the art). On this basis, the examiner's rejection of claims 2-5 as being unpatentable over Pauletta cannot be sustained.

Moreover, for the reasons discussed in our treatment of the anticipation rejection of claim 1, the heat exchanger of Pauletta does not meet the "regenerator" limitation found in claims 2-5 by

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way of their dependence from claim 1, thereby providing an additional reason for not sustaining the standing rejection of claims 2-5 based on Pauletta.

*III. The obviousness rejection of claims 6-12*

Claims 6 and 7 depend from claim 1 and claim the regenerator of claim 1 in combination with, respectively, a gas cycle machine equipped with a displacer, and a coaxial pulse tube refrigerator. Claims 8 and 9 depend from claim 1 and add that the regenerator includes, respectively, a generally cylindrical tube disposed inside the innermost layer of foil, and a solid plug disposed inside the innermost layer of foil.

Independent claim 10 reads as follows:

10. In a coaxial pulse tube refrigerator, an improvement comprising a plurality of concentric foil layers wherein outer foil layers are regenerator foil and inner foil layers are smooth foil.

Pauletta, the primary reference in the examiner's rejection of claims 6-10, has been discussed above. Yaron pertains to

compact, high efficiency foil regenerators for use in regenerative gas cycle (e.g., Stirling cycle, Ericsson cycle, Vuilleumier cycle, Gifford-McMahon cycle, Sibling Cycle and similar) cryocoolers, heat engines, refrigerators and heat pumps. Very thin foil us [sic, is] formed in patterns of slits and slots that produce highly efficient regenerators when the foil is stacked in layers as by rolling it upon itself.  
[Abstract.]

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In rejecting claims 6-12 as being unpatentable over Pauletta in view of Yaron, the examiner found (answer, page 4) that Pauletta "discloses all the claimed features of the invention with the exception of the claimed elements in claims 6-9" and that Yaron "discloses a gas cycle machine with a displacer, a coaxial pulse tube refrigerator in combination with a regenerator foil installed in a cylindrical space for the purpose of making and operating a coaxial pulse tube refrigerator." Based on these teachings, the examiner concludes that it would have been obvious to one of ordinary skill in the art in view Yaron to use a displacer in combination with the heat exchanger of Pauletta and/or to operate the heat exchanger of Pauletta as a coaxial pulse tube. The examiner's motivation for these proposed modifications is "for the purpose of making and operating [the device of Pauletta as] a coaxial pulse tube refrigerator as in Yaron et al" (answer, page 4).

Appellant argues (main brief, page 17) that the examiner gives no cogent reason why anyone would think to combine the cited references, and that it makes no sense to do so. We agree. To modify Pauletta in view of the teachings of Yaron to operate as a refrigerator, as proposed by the examiner, would run directly counter to Pauletta's stated purpose of heating waste

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gas to a high temperature in order to eliminate noxious gas constituents therefrom, thus making Pauletta's device, at best, unsuitable for its intended purpose. For this reason, the standing rejection of claim 6-10, as well as claims 11 and 12 that depend from claim 10, as being unpatentable over Pauletta in view of Yaron is not sustainable.

In addition, because we do not consider that the heat exchanger of Pauletta constitutes a "regenerator" as claimed in claim 1, from which claims 6-9 depend, we do not agree with the examiner's determination that Pauletta discloses the claimed subject matter "with the exception of the claimed elements in claims 6-9" (answer, page 4). Accordingly, even if Pauletta were to be modified in the manner proposed by the examiner, the subject matter of claims 6-9 would not result. This constitutes an additional reason why the standing rejection of claims 6-9 is not sustainable.

In light of the above, we will not sustain the standing rejection of claims 6-12 as being unpatentable over Pauletta in view of Yaron.

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*Summary*

The rejection of claim 1 as being anticipated by Pauletta is reversed.

The rejection of claims 2-5 as being unpatentable over Pauletta is reversed.

The rejection of claims 6-12 as being unpatentable over Pauletta in view of Yaron is reversed.

Accordingly, the decision of the examiner finally rejecting the appealed claims is reversed.

*REVERSED*

CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
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	)	
LAWRENCE J. STAAB	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

LJS:hh

Appeal No. 2002-0064  
Application No. 09/084,042

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Exhibit B

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MASAMITSU YAMAMOTO et al.

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Appeal No. 2000-0286  
Application No. 08/704,031

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ON BRIEF

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Before FRANKFORT, NASE, and BAHR, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 8 to 12, which are all of the claims pending in this application.<sup>1</sup>

We REVERSE and enter a new rejection pursuant to 37 CFR § 1.196(b).

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<sup>1</sup> Claim 8 was amended subsequent to the final rejection.



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Application No. 08/704,031

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BACKGROUND

The appellants' invention relates to a disposable absorbent undergarment. A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Watanabe et al. 1992 (Watanabe)	GB 2 253 131 A	Sep. 2,
Tagawa et al. (Tagawa)	EP 0 623 331 A2	Nov. 9, 1994

Claims 8 to 12 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the appellants, at the time the application was filed, had possession of the claimed invention.

Claims 8 to 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Watanabe in view of Tagawa.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the final rejection (Paper No. 12, mailed April 23, 1998) and the answer (Paper No. 24, mailed April 9, 1999) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 23, filed February 23, 1999) and reply brief (Paper No. 25, filed June 9, 1999) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

#### **The written description rejection**

We will not sustain the rejection of claims 8 to 12 under 35 U.S.C. § 112, first paragraph.

The written description requirement serves "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material." In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the written description requirement, the appellant does not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." In re Gosteli, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Put another way, "the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Finally, "[p]recisely how close the original description must come to comply with the description requirement of section 112 must be determined on a case-by-case basis." Eiselstein v. Frank, 52 F.3d 1035, 1039,

34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting Vas-Cath, 935 F.2d at 1561, 19 USPQ2d at 1116).

The examiner determined (final rejection, p. 3) that claims 8 to 12 violated the written description requirement of the first paragraph of 35 U.S.C. § 112 due to the inconsistency of the description of the second elastic material (e.g., the claimed second elastic material referencing elastically stretchable members 15 while the specification referred to the second elastically stretchable members by reference number 14). The appellants admit (brief, p. 5) that there is an inconsistency between the terminology used in the claims under appeal and the specification and state that they are willing to file an amendment to make the claims consistent with the specification.<sup>2</sup> The appellants then go on to argue that notwithstanding the inconsistencies, the claims under appeal are described in the original specification in a way as to reasonably convey to one skilled

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<sup>2</sup> Notwithstanding our reversal of this ground of rejection, we encourage the appellants to file such an amendment.

in the art that the inventors had possession of the now claimed invention.

In our view, the appellants' original disclosure does provide, with reasonable clarity, written description support for the claimed subject matter found objectable by the examiner as set forth above. In that regard, the claims under appeal clearly recite first elastic material, second elastic material and third elastic material which one skilled in the art would reasonably know refer respectively back to the first elastically stretchable members 13, the elastically stretchable members 15 and the second elastically stretchable members 14. Accordingly, the decision of the examiner to reject claims 8 to 12 under 35 U.S.C. § 112, first paragraph, is reversed.

**New ground of rejection**

Under the provisions of 37 CFR § 1.196(b), we enter the following new ground of rejection against appellants' claims 8 to 12:

Claims 8 to 12 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the appellants, at the time the application was filed, had possession of the claimed invention. The original disclosure (p. 10) provided that the liquid-absorbent pad included a **liquid-permeable topsheet** 38, a liquid-impermeable backsheet 39 and a liquid-absorbent panel disposed therebetween. Original claim 1 provided that the liquid-absorbent pad comprises a **liquid-permeable topsheet**, a backsheet and a liquid-absorbent panel disposed between these two sheets. Claim 8 (first presented in the amendment filed on June 13, 1997, Paper No. 7) recites that the liquid-absorbent pad comprises a **liquid-impermeable topsheet**, a backsheet and a liquid-absorbent panel disposed therebetween. After reviewing the original disclosure, we fail to find any written description support for the topsheet of the liquid-absorbent pad being **liquid-impermeable**.

**The obviousness rejection**

We will not sustain the rejection of claims 8 to 12 under 35 U.S.C. § 103.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). Thus, even a claim limitation which lacks written description support cannot be disregarded.

In this case, the inner sheet 15 of Watanabe's absorbent body 3 (which corresponds to the claimed topsheet of the liquid-absorbent pad) is liquid permeable not liquid impermeable as claimed. Since the applied prior art would not have suggested making the inner sheet 15 of Watanabe's absorbent body 3 impermeable, we must reverse the decision of the examiner to reject claims 8 to 12 under 35 U.S.C. § 103.



Since in response to our new ground of rejection made above the appellants may amend claim 8 by changing "liquid-impermeable topsheet" to "liquid-permeable topsheet," we present our views on three issues of obviousness raised in the appeal to expedite any further prosecution of the claimed subject matter. First, it is our opinion that the claimed "said crotch section including a liquid-impermeable film stretchable at least in said longitudinal direction" would have been obvious at the time the invention was made to a person having ordinary skill in the art from the teachings of the applied prior art since Tagawa's teachings of a film in backsheet 3 (column 8, lines 21-28) would have been suggestive to modify Watanabe's outermost impermeable layer 2 to include a stretchable liquid-impermeable film. Second, it is our opinion that the claimed "said crotch section further including second elastic material extending between said pair of leg-openings so as to be stretchable transversely of said short pants, a portion of said second elastic material extending along rear side peripheries of said leg-openings and another portion of said second elastic material extending across said crotch section in proximity of said lower ends of

said leg-openings" would have been obvious at the time the invention was made to a person having ordinary skill in the art from the teachings of the applied prior art since Tagawa's teachings using either elastically expansible members 8 (see Figures 1-5) or elastically expansible members 115a and 115b (see Figures 6-10) would have been suggestive to modify Watanabe's elastic members 13 to be shaped as suggested by the elastically expansible members 115a and 115b of Tagawa.

Third, with respect to claim 9, it is our view that a prima facie case of obviousness has not been established since the examiner has not presenting any evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. In that regard, the mere fact that a difference (between the teachings of the prior art and the claimed subject matter) does not provide any new result or solve any recognized problem does not, *ipso facto*, make that difference obvious under 35 U.S.C. § 103. Thus, we view the examiner's reliance (answer, p. 7) on In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) to be misplaced in this instance.

CONCLUSION

To summarize, the decision of the examiner to reject claims 8 to 12 under 35 U.S.C. § 112, first paragraph, is reversed; the decision of the examiner to reject claims 8 to 12 under 35 U.S.C. § 103 is reversed; and a new rejection of claims 8 to 12 under 35 U.S.C. § 112, first paragraph, has been added pursuant to provisions of 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that, "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new

ground of rejection to avoid termination of proceedings

(§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

REVERSED; 37 CFR § 1.196(b)

CHARLES E. FRANKFORT  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

JENNIFER D. BAHR  
Administrative Patent Judge

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Appeal No. 2000-0286  
Application No. 08/704,031

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Appeal No. 2000-0286  
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JVN/jg



Exhibit C

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 34

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MASAMITSU YAMAMOTO, TAKAMITSU IGAUE,  
YOSHIHISA FUJIOKA and HIROTOMO MUKAI

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Appeal No. 2000-0301  
Application No. 08/690,402

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ON BRIEF

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Before COHEN, ABRAMS, and NASE, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 7, which are all of the claims pending in this application.

We REVERSE.



BACKGROUND

The appellants' invention relates to a disposable diaper (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Lawson 1987	4,695,278	Sep. 22,
Enloe 1987	4,704,116	Nov. 3,
Foreman 1988	4,738,677	Apr. 19,
Igaue et al. 1990 (Igaue)	4,904,251	Feb. 27,
Robertson 25, 1991	5,026,364	June
Kido Apr. 20, 1994	GB 2,271,501	

Claims 1 to 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kido in view of Enloe, Lawson, Foreman, Igaue and Robertson.

Claims 1 and 4 to 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Enloe in view of Lawson, Foreman, Igaue and Robertson.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 30, mailed April 14, 1999) for the examiner's complete reasoning in support of the rejections, and to the substitute appeal brief (Paper No. 29, filed January 4, 1999) and reply brief (Paper No. 31, filed June 14, 1999) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness

with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 1 to 7 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence<sup>1</sup> that would

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<sup>1</sup> Evidence of a suggestion, teaching, or motivation to modify a reference may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), Para-Ordinance Mfg., Inc. v. SGS Importers Int'l., Inc., 73 F.3d 1085, 1088, 37 USPQ2d 1237, 1240 (Fed. Cir. 1995), cert. denied, 117 S. Ct. 80 (1996), although "the suggestion more often comes from the teachings of the pertinent references," In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular. See, e.g., C.R. Bard Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998), cert. denied, 119 S. Ct. 1804 (1999). A broad conclusory statement regarding the obviousness of modifying a reference, standing alone, is not "evidence." E.g., McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977). See also (continued...)

have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

The appellants argue that the applied prior art does not suggest the claimed subject matter. Specifically, the appellants assert (brief, pp. 4-13) that the "pair of elasticized cuffs" as set forth in the independent claims on appeal (i.e., claims 1 and 6) are not suggested by the applied prior art absent the use of impermissible hindsight.<sup>2</sup> More specifically, the appellants argue that the applied prior art does not teach or suggest the claimed pair of elasticized cuffs including "a substantially crescent-shape portion" or "a

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<sup>1</sup>(...continued)

In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

<sup>2</sup> The use of hindsight knowledge derived from the appellants' own disclosure to support an obviousness rejection under 35 U.S.C. § 103 is impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

crescent-shape portion" as recited in the claims under appeal.

All the claims under appeal require the claimed pair of elasticized cuffs to include either "a substantially crescent-shape portion" as recited in claim 1 or "a crescent-shape portion" as recited in claim 6. However, it is our opinion that these limitations are not taught or suggested by the combined teaching of the applied prior art.

To supply this omission in the teachings of the applied prior art, the examiner made determinations (answer, pp. 4-10) that this difference does not provide any new result or solve any recognized problem in the art and that the cuffs of Kido are "substantially crescent-shaped."

In proceedings before the United States Patent and Trademark Office (USPTO), the USPTO applies to the verbiage of the claims before it the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever

enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the appellants' specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). See also In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). When this is done, we conclude that the term "crescent-shape" as used in the claims under appeal means a shape having concave and convex edges terminating in points.<sup>3</sup>

Clearly, the cuffs of Kido are not "substantially crescent-shaped" or "crescent-shaped" since they are shown to be "segment-shaped."<sup>4</sup> Moreover, none of the cuffs of Enloe, Lawson, Foreman, Igaue or Robertson are "substantially crescent-shaped" or "crescent-shaped." Thus, the applied prior art does not teach or suggest the claimed "substantially crescent-shaped" cuffs or "crescent-shaped" cuffs.

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<sup>3</sup> In reaching this conclusion we have utilized the definition of "crescent" provided on page 5 of the brief as well as the appellants use of that term in describing cuffs 10 and 10A (see Figure 1 and pages 7-9 of the specification).

<sup>4</sup> A segment is the area bounded by a chord and the arc of a curve subtended by the chord.

As set forth above, a prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. The mere fact that a difference (between the teachings of the prior art and the claimed subject matter) does not provide any new result or solve any recognized problem does not, *ipso facto*, make that difference obvious under 35 U.S.C. § 103. Thus, we view the examiner's reliance (answer, p. 7) on In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) to be misplaced in this instance.

In our view, the only possible suggestion for modifying the applied prior art in the manner proposed by the examiner to meet the "cuff" limitations of the claims under appeal stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. It follows that we cannot sustain the examiner's rejections of claims 1 to 7.

CONCLUSION

To summarize, the decision of the examiner to reject  
claims 1 to 7 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
NEAL E. ABRAMS	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
JEFFREY V. NASE	)	
Administrative Patent Judge	)	



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